



INFORMATION PAPER

REVIEW OF ABS EMPLOYMENT STATISTICS

INQUIRIES

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The purpose of this paper is to outline the problems that have been experienced with the civilian employees series, the outcome of a recent review of the statistics and the decisions that have been made as a result. These decisions, in the sequence in which statistical results will appear, are as follows:

- (a) Publication will be resumed of the monthly government employment series—see *The Labour Force, Australia (Preliminary)*, Catalogue No. 6202.0 and *The Labour Force, Australia*, Catalogue No. 6203.0.
- (b) A survey, similar in scope and sample size to the survey now conducted in October of each year, will be conducted each quarter, starting with the September quarter of 1981. Information on average earnings, total wages and salaries and employment will be sought from a sample of 3,500 private employers and 1,000 government bodies.
- (c) The estimate of average weekly earnings, calculated on its present basis using payroll tax returns, will be continued for the September quarter 1981. Thereafter it will be superseded by an estimate based on the quarterly survey just mentioned. Publication of the civilian employees series based on payroll tax returns will not be resumed.
- (d) In about 18 months time, an additional 16,500 private employers will be surveyed each quarter, asking for information on employment and wages and salaries. This survey and the one referred to in (b) above will be designed as a single survey for purposes of employment and wages and salaries estimates. The combined survey of 20,000 private employers plus returns from government bodies will be the basis of a new series of employment estimates.

BACKGROUND

2. For many years the two principal series of employment statistics produced by the ABS have been the employment series derived from the labour force survey (based on a sample of households) and the civilian

employees series derived from data obtained from employers' payroll records (mainly payroll tax returns, in the case of the private sector). The former series has provided estimates of total employment and information on the characteristics of employed persons (including employers and self-employed). The latter has provided estimates for wage and salary earners only, but with a dissection of employment by industry more detailed than that provided by the labour force survey.

3. The series have differed in coverage, definition, sources of information, methods of collection and estimation procedures. The survey estimates are subject to sampling variability and both series are subject to non-sampling errors. The payroll-based civilian employees series has suffered from the particular problem that, because of limits below which payroll tax is not levied, no information has been available to the ABS about changes in the employment levels of the large number of smaller businesses which are not liable for payroll tax. It is estimated that in April 1980 the number of employees of these businesses was about three-quarters of a million out of a total of five million civilian employees. Without current information, employment for these small businesses has been assumed to vary in proportion to the variation in the employment of larger employers. This assumption has long been regarded by the ABS as unsatisfactory.

4. Major revisions to the civilian employees estimates have had to be made from time to time, most recently in mid-1979. The main sources for the revisions were the population census and the labour force survey. This series and the labour force survey series have frequently displayed different movements, but from late in 1979 the survey-based series grew much more rapidly than the payroll-based series. This growing divergence led to the decision by the Australian Statistician in July 1980 that publication of the civilian employees series should be suspended and that the ABS should undertake a review of the series and also of some aspects of the employment series derived from the labour force survey.

REVIEW OF THE EMPLOYMENT SERIES

5. The conclusions reached by the review of the two employment series were as follows:

- (a) The civilian employees series had substantially underestimated the rate of growth in employment in 1979-80. The small employers who make PAYE deductions through the Tax Stamps

scheme rather than through the Group Employer scheme account for about half the employment of businesses too small to pay payroll tax—the so-called “unrecorded sector” of the civilian employees series. With the assistance of the Australian Taxation Office, the figures on employment by these small employers were analysed and found to have increased markedly in 1979-80. On this basis it was concluded that employment in the unrecorded sector as a whole would also have grown significantly in that year, whereas the unrecorded sector of the civilian employees estimates had been assumed to grow only slowly.

- (b) A reliable dissection of employment by States and Territories, sex and industry had been seen by users as one of the major objectives of and justification for the series. But the underestimation appeared to be concentrated in certain industries (wholesale and retail trade, construction, finance) and the series had therefore been misleading as an indicator of relative change in employment, industry by industry. It was not meeting its objective, and could not meet it unless a frequent, direct measure of employment change in the unrecorded sector could be obtained.
- (c) While the labour force survey provided a reliable indication of longer-term changes in employment, for various reasons the month-to-month movements in this series were not always reliable. (A number of detailed recommendations about the labour force survey, made in the course of the review, are being implemented and are expected to lead to some improvement in the survey estimates.)

WAGES AND SALARIES, AND AVERAGE WEEKLY EARNINGS

6. It was not possible to reach firm conclusions about the future of the employment series without considering the future of the estimates of wages and salaries for national accounts purposes and the quarterly series of average weekly earnings. The main source for both of these has been the data on wages and salaries obtained from government returns and the payroll tax returns already referred to.

7. The data suffer from the following major deficiencies:

- (a) There is no recent information on which to base estimates of the wages and salaries paid by businesses too small to pay payroll tax. This is of particular importance for national accounts.
- (b) There is uncertainty about the number of pay-periods included in the payroll tax returns in respect of any one quarter.

- (c) In any given month, up to 25 per cent of returns may relate to an earlier month, so that the full effects of, for example, National Wage decisions may not be reflected immediately.

- (d) Returns for some smaller private employers are lodged only quarterly, half-yearly or at even longer intervals.

- (e) Employers report the number of employees on different bases.

8. For the purposes of average weekly earnings, the information available is limited, in that the returns do not provide separate information for:

- (a) male and female earnings: these can be estimated only in an approximate fashion, by using information from other sources on the relationship between male and female earnings;
- (b) overtime and ordinary time earnings;
- (c) the earnings of adults and juniors and full-time and part-time employees.

FUTURE COURSE OF ACTION

9. In the light of the review undertaken and discussions held with a number of Commonwealth and State Departments which are users of the statistics, the Statistician concluded that payroll tax returns could no longer provide an adequate basis for estimates of numbers of civilian employees and wages and salaries paid. Instead it would be necessary to conduct a quarterly sample survey of about 20,000 business units in the private sector, to collect information about the number and earnings of their employees. The survey results will be supplemented by the information currently collected from government bodies.

10. Although its results will be subject to sampling variability, the survey will have the following advantages:

- (a) The ABS will be able to determine data concepts and definitions, the coverage of employers, and instructions to informants. This will make possible a quarterly employment series that will meet the needs of most users of employment figures by State or Territory, sex and industry. It will largely overcome the deficiencies of the wages and salaries and average weekly earnings estimates outlined in paragraphs 7 and 8.
- (b) The ABS will have control over the statistical units in respect of which the data are reported. This will enable the employment and earnings series from the survey to be directly related to other economic statistics from the Bureau's economic censuses and surveys.
- (c) It is expected that fewer staff resources will be needed to operate the survey than are required at present to access employment and wages data from the payroll tax source.

11. In order to provide sufficiently reliable employment estimates, with a reasonable amount of detail by industry for States and Territories, the proposed survey of private employers must include about 20,000 business units. This figure was chosen because any smaller sample would have resulted in unacceptable high sampling errors in the detailed data required by major users. The degree of industry dissection available from a survey of this size will be about the same as has appeared to be available from the civilian employees series.

12. The lead time for the development of the survey will be between one and two years. The survey questionnaire and methodology will require field testing, mainly to ensure that response burden and non-sampling errors are kept to a minimum. In addition, the coverage of small businesses in the ABS register of businesses will need to be improved, in order to provide a satisfactory sample frame for the survey.

13. In order to maintain the quarterly estimates of average weekly earnings, a smaller quarterly survey of about 3,500 private employers and 1,000 government bodies will be needed. This can be implemented far more quickly, in part because an estimate of an average (in this case earnings) is less sensitive to register coverage than is an aggregate such as employment. The survey will collect separate particulars of male and female earnings for one pay period each quarter, total wages and salaries paid during the quarter, and the number of male and female employees each month. It will mean the undertaking four times a year of a survey now undertaken once a year (in October), though the detail to be asked in the December, March and June quarters will be substantially less than in the present October survey.

14. This survey will achieve a much-needed improvement in the reliability of the present quarterly estimates of average weekly earnings. Seasonal adjustment will have to be deferred for some time, but as the new figures will relate to only one pay period each quarter they will display much less seasonality than the present series.

15. Because of the small sample size the survey will not be wholly satisfactory for estimating wages and salaries, but will have to be used for the national accounts until the larger survey can be started. It will then continue as a sub-sample of the larger survey. The small sample will not provide employment estimates sufficiently reliable for publication and users will have to make do with the employment estimates from the labour force survey until results of the larger survey of employers become available.

16. Processing of payroll tax returns will cease either with the September or December quarter returns. As the small sample survey will commence in the September quarter, there will be an overlap of at least one quarter.

17. Some users who were consulted urged that processing of payroll tax returns be continued until the results of the new large sample survey are available. But the advantages of so doing are limited in the absence of any practical method of estimating employment, even in total much less in any detail, by employers not subject to payroll tax. Attempts to devise a reliable methodology for estimating employment, based on continued processing of payroll tax returns plus a supplementary coverage of employers not subject to payroll tax, were unsuccessful.

RESPONSE BURDEN

18. The ABS is very conscious that the proposed sample survey will impose a response burden on businesses selected in the survey, but the proven inadequacy of payroll tax returns as a source for estimating employment and total wages and salaries leaves no alternative. In order to minimise the response burden on businesses included in the larger new survey, the information sought will be kept to a minimum that can be extracted readily from business records. It will comprise the number of male and female employees at the end of each quarter, and total wage and salary payments made during the quarter. The information to be collected in the sub-sample of 3,500 private and 1,000 government bodies will be more detailed, but is essential if estimates of average weekly earnings are to be adequate for the many purposes for which they are being used.

19. Negotiations will be initiated with State Government tax authorities to see whether they attach importance to retaining a question on employment on payroll tax returns. If they do not, a saving could be achieved in the total amount of employment information that businesses are asked to provide. For a small sample of the businesses not liable to payroll tax, there would be a new requirement, but the total response burden on the business community would be reduced.

20. In May each year the ABS has conducted a survey of approximately 7,000 employers to collect data on earnings and hours. In order to further reduce response burden, it is proposed in future to undertake this survey only every second year.

NATIONAL ACCOUNTS ESTIMATES

21. The inadequacies of payroll tax returns as a source for estimating wages and salaries have serious consequences for national accounts estimates. The new large survey of employment will remedy these inadequacies, but until results become available the smaller earnings survey will have to be used. Interpretation of the estimates of quarterly wages and salaries paid will need to bear in mind that:

- (a) The earnings survey will have a smaller coverage of small businesses and wage and salary estimates a higher sampling error than is desirable.
- (b) Linking results from different sources will not be easy.
- (c) There will be uncertainty concerning the seasonal element in the quarterly wages and salaries series, even though information will be collected in the earnings survey about the annual patterns of pay days.
- (d) Lack of adequate information about wages and salaries in different industries and sectors may necessitate the suspension of some detailed national accounts dissections.

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